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Military Leadership, Service Networks, and Priorities in Military Spending*

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Abstract

How does political competition among domestic actors influence foreign policy choice? Studies examining this question often focus on the role of economic or partisan interests, and how they influence the preferences civilian decision-makers who are subject to the electoral pressures of their constituents. Less attention has been paid to how the preferences of other influential, unelected, actors influence state behavior. I examine the influence of one such group by looking at how the preferences of American military leaders shape decisions on American military spending and force structure. Using tools from the field of network analysis, I find support for the idea that military leaders occupying key positions can influence defense spending priorities in favor of their respective branches. Results also show how the influence of military leaders has changed over time, and is conditional upon the institutions governing the relationships between civilian decision-makers and military leaders.

Keywords: Foreign policy, Military Spending, Domestic politics and international relations, military leaders.

“I do want your input, but I want your advice as the Joint Chiefs of Staff, *not* as individual Service Chiefs scrambling for the biggest piece of pie in this operation.”

— General Tommy Franks

“‘Washington is a Navy town, and it always has been,’ Garner replied. But wait a minute, I pressed during one of several discussions. The top soldier in the whole country, the chairman of the Joint Chiefs of Staff, General Shalikiashvili, is an Army Man. ‘Never helps,’ Garner Replied. ‘An Army chairman of the Chiefs says how bad can I stick my service to prove that I’m a purple guy? If you make a Navy or Air Force guy the chairman, he’s the most parochial SOB you’ve ever seen in your life.’”

— (Wilson 2000, 53)

How does political competition between domestic interests impact a state’s foreign policy choices? To date, a significant body of research, much of it focusing on the United States, has examined how various domestic interests, such as partisan or economic interests, have shaped the preferences of domestic actors in democratic states and, in turn, influenced the state’s actions in the international sphere. Fordham (1998) and Clark (2003) have shown how partisanship interacts with economic factors in affecting decisions to use military force by the United States. Arena & Palmer (2009) have similarly examined how such factors influence decisions on the use of military force in other democratic states. Fordham (2002) has examined how the preferences of Republicans and Democrats over macroeconomic policy have influenced decisions related to military force structure. Similarly, Milner & Tingley (2010) have shown how partisanship and economic incentives influence Congressional voting patterns on issues related to foreign aid and free trade.

While such studies have enhanced our understanding of the domestic sources of foreign policy choice, they invariably focus on the divergent incentives of elected officials representing different societal interests. However, these elected officials represent only a portion of the policymaking process. Indeed, beyond this “first” layer of elected policymakers lies an additional layer of actors who also play an important role in both crafting and executing foreign policy. Key players in the policymaking process, like the military, are conspicuously absent in studies examining foreign

policy choice. The absence of such players in empirical studies is particularly striking given the preeminent position that conflict studies has attained in the field of international relations.

This article seeks to address this gap in two ways: First, I examine the influence that American military leaders exert on defense policy outcomes. Specifically, this project will seek to move beyond the first layer of the decision-making process to examine the ways in which senior military officers are able to compete with one another to influence defense spending priorities. Several scholars and former policymakers have discussed the inter-service rivalries that are alleged to prevail in the American military (e.g. Lowi 1963, Wilson 2000, Nagl 2002, Franks 2004, Halperin, Clapp & Kanter 2007). This literature typically views military leaders as myopically pursuing the interests of their respective branch of the military. This backdrop provides a convenient context in which to examine the potential for lower-level officials to influence broader policy outcomes. Furthermore, the United States since the end of World War II provides a solid case on which to focus given its position as a global military superpower and the central role that military leaders have come to play in foreign policymaking.

Second, this analysis will examine how the influence of senior military leaders has been affected by changes in the institutions governing their relations with elected civilian policymakers. Although we typically tend to focus on institutions such as parliamentary or presidential systems when examining institutional influences on foreign policy choice (see Reiter & Tillman 2002, Leblang & Chan 2003, Clark & Nordstrom 2005), there are additional institutional constraints to consider. Such institutional factors determine the ability of lower-level political actors to influence policy by establishing their role in the policymaking process, and by determining their level of access to civilian decision-makers.

Such issues are important in determining how the military capabilities of states are shaped by their domestic political landscapes, and consequently, the opportunities in which military force may be applied. For example, during the buildup to the wars in Iraq and Afghanistan, officials in President George W. Bush's administration became frustrated by the inability of the American

military to mobilize in a relatively short period of time (Woodward 2002). Problems related to spending priorities and force structure presented further difficulties in the aftermaths of these invasions; the Army, strained by its lack of personnel, attempted to recruit personnel from the other branches of the military in order to meet its need for more soldiers (Schmitt 2004). The duration and costs of these wars have even led Defense Secretary Robert Gates to explicitly call on policymakers and military officials to rethink the balance between the branches of America's military. Gates argues that in the future, less emphasis must be placed on the Army and its large mechanized divisions, and greater emphasis on air and sea power, when it comes to how America responds to crises abroad (Shanker 2011).

Furthermore, the potential for military leaders to influence defense spending priorities in favor of their respective branches provides important insights into the national security policymaking process and helps to unpack some of the dynamics involved in the delegation of responsibilities from civilian leaders to military officials. It also suggests something important about the degree to which national security is something that can be objectively defined—if the evidence indicates that even elements of the military disagree over how best to approach the state's national security needs, it stands to reason that other organizational, political, or economic factors may contribute to shaping different preferences and perceptions of domestic actors over matters related to national security.

This paper will proceed as follows: First, I will review the anecdotal evidence as it pertains to inter-service rivalries. Second, in order to build upon the arguments found in the qualitative literature, and to clarify how inter-service competition translates into influence with civilian decision-makers, I draw on bureaucratic politics theory to help generate more refined expectations regarding the behavior and incentives of military leaders. The third section will review the data used in this study and the operationalization of the variables. Finally I will conclude with a discussion of the results and suggestions for future research.

Inter-Service Rivalries

The National Security Act of 1947 was partly intended to rein in what many civilian leaders saw as the excessive competition between the different branches of the military. It sought to unify the previously independent service branches into a single organization under a single civilian secretary. Many military and civilian leaders were appalled by the lack of coordination and excessive competition that they saw during World War II. “We must never fight another war the way we fought the last two,” said President Truman, “I have the feeling that if the Army and the Navy had fought our enemies as hard as they fought each other, the war would have ended much earlier,” (Clifford 1991).

The process of unifying and restructuring the military brought about resistance by those military officials who feared the effects of the potential changes. Many in the Navy’s leadership, for example, fiercely resisted the proposed changes, believing that the restructuring process would strip the Navy of some of its most important assets, such as its air power and the Marine Corps, thereby relegating it to a transportation role for the other branches. The growth in the Army and Army-Air Corps during the Second World War led many in the Navy’s leadership to believe that the Navy’s much smaller ground forces and its carrier-based aviation arm would be eliminated to concentrate these functions in other branches. James Forrestal, then Secretary of the Navy, opposed unification on these grounds, claiming that it would be “fatal” for the Navy (Stevenson 2008, 130).

The advent of the atomic bomb created additional competition between the branches of the military. Despite the early recognition by some civilian and military leaders that atomic weapons would serve very little practical use aside from their deterrent effect, some military leaders were fearful that the new weapon would hurt their branch’s standing in the defense community. Army officers, for instance, were worried that a growing emphasis on nuclear weaponry would lead to severe cuts in the Army’s budget and manpower since the newly founded Air Force had the clearest

linkage with the delivery of nuclear weapons prior to the development of inter-continental ballistic missiles and smaller tactical nuclear weapons (Halperin, Clapp & Kanter 2007). Indeed, these fears were validated as civilian leaders (particularly Republicans) preferred the less expensive nuclear weapons to larger and more expensive conventional forces in deterring the Soviet threat (Isaacson & Thomas 1986, Fordham 2002).

Although the early Cold War period could be dismissed as unique given the unprecedented amount of restructuring that was taking place in America's defense community, there is ample evidence suggesting that such competitive dynamics have persisted in a consistent fashion over the past 60 years. Although initially emphasizing its ability to wield nuclear weapons, the Air Force gradually lost its edge as advancements in both nuclear weaponry and delivery technology allowed the other branches of the service to play a greater role in the nuclear game. The development of smaller more portable tactical nuclear weapons, and the development of smaller missile-based nuclear delivery systems, allowed the Army to become a more serious competitor in the application of America's nuclear arsenal in the field. Similarly, development in submarine and missile technology allowed nuclear missiles to be deployed on Navy submarines (Halperin, Clapp & Kanter 2007). Such changes threatened to reduce the Air Force's share of the defense budget, which would in turn have an affect on the career ambitions and influence of several high ranking Air Force officers.

Even during the Vietnam War, inter-service rivalry is viewed as having affected America's approach to waging war. As some scholars have argued, the effect of World War II was to solidify a particular vision of each branch's mission within its organizational culture (Nagl 2002, Halperin, Clapp & Kanter 2007). Nagl's (2002) account of the Army's efforts to combat the insurgency in Vietnam highlight the extent to which it attempted to frame operations in such a way that would justify its leading role in the conflict. The Army's expanding role in Vietnam was coming on the heels of the Eisenhower administration, wherein conventional forces had been scaled back in favor of strategic nuclear forces—the "lean years of massive retaliation" for the Army (Nagl 2002, 126). Nagl goes on to describe more fully the extent to which Army leaders resisted implementing any

changes that would potentially give other branches a greater role. For example, the Army fiercely resisted changes proposed by the Marine Corps, as the Marine Corps' proposed counter-insurgency program would have conflicted sharply with the Army's preferred methods of waging war, and may have threatened the Army's dominant position.

Inter-service rivalries have continued to be an issue of concern since the end of the Cold War. The military downsizing that accompanied the fall of the Soviet Union forced military leaders to fight to stave off cuts to their respective branches. Franklin Spinney, a former Air Force officer and civilian program analyst at the Department of Defense in the 1990s, perhaps articulated the issue best, arguing that the problem of inter-service rivalry stems from the fact that service chiefs think "they're in a zero-sum game. They think that if they cancel something like the F-22, some other service...will take that money," (Wilson 2000, 184). Spinney went on to remark on the difficulties civilian officials have had in trying to restrain inter-service competition in the context of military spending, saying that military leaders have "risen up through some thirty years of infighting. No matter what kind of warriors they may be, they're smart and understand the bureaucracy of the American military. Political appointees are no match for these service chiefs and the bureaucracies they control." (Wilson 2000, 184–185).

Wilson's (2000) interviews with high ranking military officers further support the perception that military leaders fiercely compete with one another to influence policy. When asked how the American military needed to change in the post-Cold War world, Marine Corps Commandant Charles Krulak argued that the Army needed to scale back drastically; that its heavy armored divisions were far too slow to deploy and were not practical when the future would require forces capable of fighting protracted "three-block" wars in urban population centers. Similarly, he argued that the Air Force should scale back its emphasis on air power and focus more on space and cyber warfare. Alternatively, Krulak defended the Navy's large carrier-based fleets as essential in rapidly deploying ground and air forces abroad. He also defended the Marine Corps' controversial V-22 Osprey program as important in rapidly deploying and extracting small forces in combat

zones. Predictably, Army Lieutenant General Jay Garner saw the Osprey as an enormous waste of resources as it was only capable of carrying a small team of soldiers and could not carry heavier equipment and cargo loads comparable to existing helicopters used by the Army.

During the buildup to the wars in Iraq and Afghanistan, General Tommy Franks, then Commander-in-Chief (CINC) of US Central Command, described his experiences with the various service chiefs as marred by parochialism. During a meeting with the service chiefs and Secretary of Defense Rumsfeld, Franks presented Central Commands' plans for the invasion of Afghanistan. Franks later complained that the chiefs used the meeting as an opportunity to petition the secretary for a greater role for their particular service and that they were not focused on the invasion as being a joint military operation. According to Franks, Michael Ryan, the Air Force Chief of Staff, tore apart Franks' proposed plans, arguing that a greater emphasis on air power was needed. Similarly, Marine Corps Commandant James Jones argued for an expanded role for amphibious forces in the operation. Later (and in person) Franks blasted General Jones and Chief of Naval Operations Vern Clark for using a war-planning session to jockey for influence (Franks 2004). Franks' feelings are summed up nicely in the following passage:

I had spent thirty-five years trying to work around the problem of service parochialism; now, as a CINC, I saw how that kind of narrow thinking had affected even the highest levels of military planning. As I worked out force requirements for CENTCOM [Central Command], it became obvious that each of the services was focused on winning wars—*alone* [sic]. They were funded as independent entities, and had no real inclination to fight *together* [sic] as part of a joint team (Franks 2004, 207).

The history of inter-service relations suggests that the prevailing attitude among military leaders has been one of blind obedience to their respective services, taking every opportunity to advance their branch's cause to civilian policymakers. And while there is ample anecdotal evidence asserting that this is the case, there is very little empirical evidence examining the effects of such in-

fighting and whether or not military leaders can indeed influence policy outcomes. Rhodes (1994) provides one of the only quantitative tests of these claims in his examination of the three unions of the U.S. Navy.¹ Framing his argument in terms of the bureaucratic politics literature, Rhodes finds little support for the idea that the service background of the Chief of Naval Operations (CNO) influences spending priorities. However, Rhodes' study fails to account for the fact that there are several actors in any organizational hierarchy that are positioned to influence policy. Failing to account for the influence of these other actors does not provide an accurate basis on which to judge the general influence such officials may or may not exercise in policymaking.

Bureaucratic Politics and Inter-Service Rivalries

The anecdotal evidence outlined above is a useful starting point, but it is insufficient for generating more precise hypotheses. Turning to the bureaucratic politics literature provides a more solid theoretical framework in which to develop expectations regarding the means by which military leaders influence policy. I will first briefly outline the important elements of bureaucratic politics theory, and will then proceed to detail the ways in which the anecdotal evidence can be incorporated to generate testable hypotheses.

Bureaucratic Politics Theory

Bureaucratic politics theory sees policy choice as the product of interactions between several different actors. The actors themselves are individuals, typically defined according to their roles within particular organizations, and the organizations themselves existing within a broader organizational structure.² The position that an individual actor holds determines the sorts of powers that are available to that actor, and also shapes that actor's preferences and views over a variety of policy issues.

¹The three unions Rhodes examines are the surface fleet, submarine fleet, and aviators.

²It should be noted that actors need not hold official positions or offices within the larger organization, such as Secretary of Defense or State, to be influential in the policymaking process.

What an actor cares about and the goals that they are trying to pursue are often influenced by (if not outright defined by) their position and the organizations to which they belong. Scholars of bureaucratic politics have discussed the notion that organizational missions or mandates serve to inform an individual's sense of broader goals (Allison 1969, Allison & Halperin 1972, Allison & Zelikow 1999, Moe 1989, Betts 1991, Halperin, Clapp & Kanter 2007).³ For example, the armed forces come to view national security through the lens of military power, and the individual services come to view national security through the lens of their own service's well-being. According to Allison and Halperin:

Members of an organization, particularly career officials, come to believe that the health of their organization is vital to the national interest. The health of their organization, in turn, is seen to depend on maintaining influence fulfilling its mission, and securing the necessary capabilities. The latter two interests lead to concern for maintaining autonomy and...maintaining or increasing budgets. (Allison & Halperin 1972, 48)

An actor's position is important not only because it contributes to shaping preferences, but because it also determines an actor's power to influence policy choice. Position is a relative term derived from an actor's stance vis-a-vis a variety of other players, agencies, and interests. Position within a hierarchy is emphasized as it relates to what Allison (Allison 1969, Allison & Zelikow 1999) refers to as "action-channels," or the rules that determine the regularized pathways of communication and input into the policymaking process. Action-channels, "vest and weight particular interests and perspectives by distributing formal powers, information, access, and bargaining advantages to players with predictable predispositions in regularized policymaking processes,"

³This view is also accepted by scholars concerned with the role played by epistemic, or expertise-based communities (E.g. Haas 1992). Scholars have argued that groups of individuals with specialized knowledge and expertise in particular areas come to view their interests and broader goals in the context of their particular area of specialization. Furthermore, it is argued that these groups seek to advance their interests and goals through the consolidation of bureaucratic power.

(Allison & Zelikow 1999, 5808). The head of a department must watch out for the well-being of that department, and while lower ranking individuals within the department may share similar views, their ability to influence policy is limited by their lower standing within the organization. For example, it is usually the Chairman of the Joint Chiefs, not the Vice-Chairman, that advises the president on military and security issues.

Consequently we should expect positions closer to the top of an organization's hierarchy to be commensurate with greater power. This power ultimately stems from the senior official's ability to choose what information, transmitted up the organizational ladder, gets reported to decision-makers. This is not to say that lower ranking officials do not have any power. Some scholars have noted the fact that lower-ranking officials can influence decisions by influencing the flow of information as it moves from the ground up (Hammond 1986, Allison & Zelikow 1999, Halperin, Clapp & Kanter 2007). However, the power of any single actor to significantly influence policy outcomes in this way should diminish as alternative sources of information increase, and higher level officials still serve to filter and relay the final recommendations to decision-makers.

Finally, it is important to emphasize the ability of bureaucrats to influence policy decisions even though bureaucratic actors may not necessarily be the ones who make the final decision. As scholars of bureaucratic politics (Allison & Zelikow 1999, Betts 1991, Halperin, Clapp & Kanter 2007), scholars of delegation (Epstein & O'Halloran 1999), and those scholars concerned with the role played by epistemic communities (Haas 1992) have argued, power and authority may be delegated in situations where the decision-makers themselves lack the expertise or resources to make decisions. For example, although civilian officials within the executive and legislature have a great deal of influence in the budgeting process, they are often unprepared to assess the needs of particular agencies whose needs are determined by highly specialized experts. This is particularly true concerning the military—while civilian officials may have served in the military, their service was likely not long enough for them to develop the same breadth of knowledge as career officials. In areas such as national security, it is possible that the power of the bureaucratic agents is further

enhanced given the belief that civilian interference in military affairs is “playing politics” with national security.

Applications to Military Leadership

Bureaucratic politics theory offers important insights into the dynamics that may be animating inter-service competition. Indeed, the military provides an excellent test subject given its emphasis on rank, structure and hierarchy. After the Second World War and the American ascendancy to global hegemony, the guidance of career military officials became essential to civilian policy-makers. The increasingly sophisticated nature of military weaponry and capabilities, combined with America’s expanding global military commitments, have led to an increasing role for military leaders. Indeed, some scholars have pointed to the increasing “militarization” of American foreign policy during the Cold War era (Bacevich 2004, Bacevich 2009). Given the increasingly complex nature of America’s role in international affairs has led military leaders to be important provisioners of expertise on issues pertaining to American military capabilities and security concerns. Senior military officials would thus seem to qualify as key players in the game of national security.

For present purposes the actors in the model are individual military officers, and since theory dictates that an actor’s interests are derived primarily from their membership within an organization, we should expect these actors to use their positions to advance the interests of their respective organizations. This means that Army officers should seek to advance the interests of the Army, Navy officers the Navy, and so on. But bureaucratic politics theory leads us to expect that not all military personnel have an equal opportunity to influence policy. Only those actors that occupy important positions within the military’s hierarchy should have this ability.⁴ Holding positions within the broader organizational structure of the military gives these officers access to both opportunities

⁴I acknowledge that this is a simplifying assumption. There are enumerable informal channels through which military officials might seek to influence policy. Such information channels are virtually impossible to identify and model appropriately.

and power. It is also important to recognize that there are inherently a limited number of such positions available, thus limiting the number of advisors that are going to be involved in significant decision-making processes.

Furthermore, as scholars have argued, the power of an actor or group to influence policy is largely a function of the extent to which they can consolidate their power within a broader organizational framework. I have already described the theoretical processes that dictate the preferences held by actors and that the kind of information they are likely to give in an advisory capacity will reflect organizational interests. However, for the purposes of this analysis we are really interested in the aggregate effect of these individual actors working to advance their service's interests. As a logical extension, it holds that multiple actors holding the same preferences should be better able to advance the cause of that organization than a single individual could. Given a limited number of positions on which civilian leaders can call for expert military advice, the more positions that are held by officers sharing a common organizational affiliation will effectively limit the variety of information that is available. By holding a greater share of positions within the military hierarchy, a particular branch of the military should subsequently have a greater ability to influence policy outcomes—the efforts of these individual officers who share interests should be cumulative.

But power and control over the broader military organization are not simply a function of the number of positions held—hierarchical considerations also matter. Power is not just a function of how many positions an organization controls, but also how powerful those positions are. This is especially important in the military as the chain of command determines the action-channels through which officers can attempt to influence policy. Higher ranking officers, through their control of the information that flows up to top civilian policymakers, should have a greater ability to influence policy than their subordinates. Since civilian leaders frequently consult a range of senior military leaders on important issues, the ability to control information in this fashion is not perfect. But the frequency with which the higher ranking officers interact with key civilian policymakers should still be greater than that of lower ranking officers. To put it differently, an individual from

one branch that occupies only one senior position might be able to advance the interests of their particular branch just as, if not more, effectively than two officers from another branch who occupy more junior positions. Consequently, representation and hierarchical power come together to determine a branch's overall power, control of information and advice, or influence, within the military hierarchy.

Hypothesis 1. *The greater a branch's control over the military hierarchy, the greater that branch's ability to influence policy.*

The Chairman of the Joint Chiefs (CJCOS) is one such position that may be unique in its ability to influence policy. As the top officer in the military the CJCOS is frequently consulted by the president and Congress as the spokesmen for the entire uniformed military. Compared to other senior positions the CJCOS is capable of engaging civilian policymakers on a more frequent basis for reasons related to seniority, prominence, and geographic proximity. Thus, control over this position might exert an independent effect.

Hypothesis 2. *Holding the position of CJCOS is positively associated with a branch's influence on policy.*

There are additional institutional and contextual factors to consider. Given the importance of the chain of command and action-channels, it is essential to consider how institutional changes have impacted the influence of different actors by altering these relationships. The Goldwater-Nichols Act of 1986 made important changes to the structure of the military and altered the chain of command in crucial ways. Prior to the passage of this legislation the Joint Chiefs of Staff were more directly involved in the chain of command for operational issues. Other high-ranking military officers, such as the regional and functional combatant commanders (CINCs), had less opportunity to express their views to senior civilian decision-makers. The Goldwater-Nichols Act changed to chain of command to run directly from the CINCs to the Secretary of Defense and the President, circumventing the Joint Chiefs. The Joint Chiefs of Staff should act as a filter, suppressing the

information flowing up from the CINCs prior to 1986, whereas after 1986 the CINCs should have greater access to senior policymakers and thus a greater ability to influence policy.

Hypothesis 3. *Greater control over the military's hierarchy should have a positive effect on a branch's ability to influence policy in the post-Goldwater-Nichols era.*

There is an additional possibility that runs counter to the previous hypothesis. So far it has been assumed that an officer's preferences are principally driven by their membership in one of the branches of the military. This assumption is in line with most of the anecdotal accounts on the matter. But aside from the service chiefs, the most important positions are the CINCs. Given that the officers holding these positions are responsible for overseeing military operations that combine equipment and personnel from all of the branches of the military, their otherwise more narrow preferences might be altered as a result of their role as a commander of a unified force. Rather than identifying themselves as an "Army man," for example, they may come to see themselves more as a representative of a wider range of interests. This possibility is supported by the theoretical literature's emphasis on position, as an individual's position itself is partially defined by the duties and responsibilities of the specific office that they hold (Allison & Zelikow 1999). There is also some limited support for this idea in the anecdotal accounts of some senior military personnel (Franks 2004).

If this is the case we should expect the post-Goldwater-Nichols era to allow these commanders greater opportunities to express these preferences. In this case, preferences are influenced less by organizational affiliation and more by the specific duties associated with an officer's current position. So even if one branch's officers hold a majority of command positions, it would do little to advance the cause of that branch since their officer's positions are no longer solely defined in terms of the branch to which they belong. Alternatively, it may in fact be the pre-Goldwater-Nichols era where holding the majority of command positions matters more since the service chiefs were better able to exercise operational control and could potentially bring their CINCs into line.

Hypothesis 4. *Greater control over the military's hierarchy should have a positive effect on a branch's ability to influence policy before the 1986 Goldwater-Nichols Act.*

As an extension of this idea, the influence of the CJCOS should be lower in the post-Goldwater-Nichols era. The Goldwater-Nichols Act took the CJCOS and the other service chiefs out of the operational chain of command. The rise of the CINCs could be expected to come at the expense of the service chiefs, and in particular, the CJCOS. Although Goldwater-Nichols established the CJCOS as the principal military advisor to the president, the formal loss of influence in the operational chain of command may have seriously harmed the CJCOS' ability to sway defense policy.

Hypothesis 5. *Holding the position of CJCOS should be less influential in the post-Goldwater-Nichols era, and more influential in the pre-Goldwater era.*

Some military scholars have alternatively argued that the Goldwater-Nichols Act affected the Chairman of the Joint Chiefs differently than other positions. Bourne (1998) argues that Goldwater-Nichols gave the Chairman increased power over military decisions—both managerial and operational. Although the legislation ostensibly elevates the power of the CINCs and lowers the power of the CJCOS, Bourne states that the unofficial role of the Chairman in transmitting orders from the president to CINCs has served to increase the Chairman's influence.

Hypothesis 6. *Holding the position of CJCOS should be more influential in the post-Goldwater-Nichols era, and less influential in the pre-Goldwater era.*

Having outlined the theoretical expectations and specific hypotheses, I now move on to discuss the data used and operationalization of the variables of interest.

Data and Operationalization

The goal of this project is to examine the influence of the competition among military leaders on actual policy outcomes. In order to determine whether or not these claims are accurate, I conduct a

series of statistical analyses wherein I examine the link between the extent of each branch's control in the military's hierarchical structure and its influence on policy outcomes.

Operationalizing Influence

In order to calculate the influence that each branch of the military has within the broader military hierarchy I utilize techniques drawn from the field of network analysis. The primary variables of interest are intended to capture the extent to which each branch of the service is positioned to exert influence on the policymaking process. As such, the unit of observation is the branch-year. To capture these dynamics I model the military's hierarchy as a two-mode network wherein each branch of the military is connected to a set of officially defined positions within the military's organizational hierarchy via the individual officers that actually occupy these positions.⁵ A branch is connected to an office by having one of its officers occupying that position in a given year. Since we are assuming that individual military officers seek to advance the interests of their respective branch as the literature indicates, I treat the individual officers as proxies for the ability of a branch to dominate the overall military hierarchy.

The first step is to define the theoretical boundaries of the network. As discussed in the theoretical section, we are only concerned with specific, officially defined positions within an organization. In order to generate the necessary measures it is important to set specific limitations on the positions to be included in the network. In establishing these limits I include only the following positions: Chairman of the Joint Chiefs (CJCOS), Vice-Chairman of the Joint Chiefs (VCJCOS), and Commanders in Chief (CINCs) of the various functional and geographic commands—also known as combatant commands. These positions were chosen because they fit with the criteria established by the theoretical literature, and serve as the most important and highest ranking positions in the American military that weigh-in on operational and personnel related issues.⁶

⁵Two-mode networks, while common in the social network analysis literature, have seen less use in the field of political science. See Wasserman & Faust (1994) and Kolaczyk (2009) for more on modeling two-mode networks. For a discussion of centrality in two-mode networks, see Faust (1997).

⁶Trask & Goldberg (1997) was used as the primary source for gathering information on military leaders occupying

Furthermore, although the American military is composed of four branches, positions like the CJCOS or CINCs are typically held by officers from different branches over time.⁷ Whereas the Chief of Naval Operations is always a Navy officer, a CINC can be drawn from any of the four branches. Furthermore, these positions provide for variation in the structure of the military hierarchy; as some positions are phased out and new ones created we can capture the fluctuations in relative influence that each branch has by capturing the variation in opportunities to exercise that influence. The creation of a new position can potentially change the balance of power between competing service branches by creating new opportunities for a branch to dominate the flow of information to civilian policymakers.⁸

To operationalize each branch's influence within the broader military hierarchy I calculate two different measures of degree centrality for each branch of the military from 1948 through 2009. These centrality measures are a modification of the basic degree centrality measure which is designed to capture the extent to which an individual actor is connected to other actors within a network. These connections are referred to as ties.⁹ This measure is simply a count of the number of ties that one actor has within a network, and is defined as follows:

$$k_i = C_D(i) = \sum_j^N x_{ij}$$

Let us assume that there are 12 positions in the military hierarchy. Degree centrality would measure the number of offices held by each individual branch of the service. If Army officers held 3 of these 12 positions, then the Army's degree centrality score would be 3. Since the number of positions

these key leadership positions. However, this source only covers military leaders through 1997. Information on officials holding key positions from 1997 through the present can be obtained in the United States Government Manual for those years (see Office of the Federal Register Various Years).

⁷Since the budgetary data used in this paper is only available for the Army, Navy, and Air Force, I treat members of the Marine Corps as members of the Navy.

⁸Given that the individual service chiefs, as particular positions, remain constant across time, I do not include them in the centrality measures generated to capture a branch's influence.

⁹While there are multiple alternative measures of centrality, degree centrality was chosen because it is the most theoretically relevant of the alternatives. For more information on alternative measures of centrality, please see (Wasserman & Faust 1994, Kolaczyk 2009)

changes periodically we can also normalize that score to make it comparable across time:

$$NormalizedDegreeCentrality = \frac{PositionsHeld}{TotalPositions}$$

Degree centrality does have weaknesses that limit its applications for this project. The primary limitation is that it only calculates the number of positions that a branch of the military holds, but does not take into account the variation in power that may be associated with each of the individual positions. For example, we may expect the Chairman of the Joint Chiefs to be more powerful than the Vice-Chairman.¹⁰ Degree centrality would treat the relative influence of all of these positions equally, and there are solid reasons to expect that this is not the case.

To remedy this problem I draw on recent work by Opsahl, Agneessens & Skvoretz (2010) and their weighted degree centrality measure to account for the strength of individual positions, as well as the number of connections a branch has. This measure is calculated as follows:

$$C_D^{w\alpha}(i) = k_i \times \left(\frac{s_i}{k_i} \right)^\alpha = k_i^{(1-\alpha)} \times s_i^\alpha$$

Where $C_D^{w\alpha}(i)$ represents the weighted degree centrality measure of actor i , conditional upon a tuning parameter, α . And where k_i and s_i represent the total number of ties and average strength of ties for actor i , respectively. As can be seen in the formula above, as α increases more emphasis is placed on the strength of an actor's ties, as represented by s_i^α .¹¹

To clarify, α represents a parameter by which the the influence of the number of ties an actor

¹⁰For the purposes of this paper I code the Chairman of the Joint Chiefs of Staff as having a power of “3”, the Vice-Chairman as “2”, and the combatant commanders as “1”. It could be argued that the changes imposed by the Goldwater-Nichols Act suggest a change in the power scores would be in order. However, I hold these scores constant across the entire time span covered by the data set. I believe this is in order given that the relative frequency with which these positions interact with senior decision-makers, as well as their geographic proximity to the centers of decision-making, suggest that there remain disparities in the extent to which field commanders have the ability and opportunity to influence policy outcomes.

¹¹For the purposes of this paper I fix α at a value of 0.5. Changing the value of alpha to .25 or .75 does not alter the significance levels of the results. It should also be noted that I use the standardized degree centrality measure described above for k_i in order to address the concerns described above regarding the temporal variation in the number of positions and the implication for relative influence.

has and the strength of those ties is weighted. An α of 0 would generate a measure that is equal to a traditional degree centrality statistic, as it places all of the emphasis on $k_i^{(1-\alpha)}$ term, which is the total number of connections actor i has. Increasing α would begin to shift more of the emphasis to the strength of an actor's ties, thus placing less emphasis on the number of actor ties. In substantive terms: $\alpha = 0$ would treat the number of command positions held by each branch as the most important factor. Alternatively, $\alpha = 1.5$ makes the strength of ties more important than the number of ties, discounting the influence of an actor's overall presence within the network.

*** Figure 1 about here ***

To provide a more substantive feel for the weighted centrality measures used here, figure 1 depicts how the changes in the proportion of total positions held, and variations in the average power of those positions, affects the weighted centrality measure. Controlling half of the available positions can result in a weighted centrality score ranging from approximately .70 to 1.0, depending on the average power associated with the positions held. In the case of the current arrangement of military offices examined here, a branch would have to control 6 of 12 positions to hold half of the available offices. Depending on the power associated with those offices, the weighted centrality measure will give that branch a score of at least .70.

Additional Variables

In order to analyze the influence a branch is poised to exert on policy, I use two different measures of military spending as dependent variables. The first variable is each branch's obligational authority, adjusted for inflation.¹² As an alternative dependent variable I also use each branch's procurement spending. Using a second spending category helps to account for the fact that the

¹²Information on obligational authority and procurement spending comes from the United States Department of Defense: Office of the Comptroller (2010). Obligational authority was chosen over budgetary authority and outlays for a variety of reasons. First, it captures the liabilities that the military actually incurs in a given year, whereas budgetary authority may include funds that are never actually spent. Outlays represent actual payments made in a given year. However, these figures may actually represent payments for liabilities incurred several years ago. This may be the case with large projects that are to be completed and delivered over the course of several years.

influence exercised may vary across spending categories. Total branch spending encompasses a wide variety of categories, such as operations and maintenance, housing, construction, benefits, etc. Military leaders might prioritize certain spending areas over other and direct their efforts to obtaining additional funds for those particular categories. Procurement provides a useful alternative category for the purposes of this analysis since military leaders should seek to acquire newer weapons systems and technologies in order to more effectively compete with their military rivals and to be better able to complete their assigned missions.

*** Figure 2 about here ***

I employ the aggregate values for each spending category rather than change values for a few important reasons. First, when discussing military spending we often speak in terms of level, making aggregate values more intuitive than changes when generating and discussing predicted values. Second, using a change variable imposes a coefficient of 1 on the influence of the previous year's spending, whereas using aggregate values and including a lagged dependent variable relaxes this constraint. The lagged variable also helps us to more directly control for the influence of the previous year's spending. Figures 2a and 2b show the patterns in obligational authority and procurement spending, respectively, over time. While broad patterns of spending are similar across branches, there is also substantial variation. Particularly, there are points where spending on one branch increases while spending on others decreases, and in other cases spending priorities on particular branches seem to trade places.

In addition to the centrality measures described above, there are other variables that are theoretically important and used for controls in the analysis. Given the hypotheses outlined above, I use a dummy variable identifying whether or not the Chairman of the Joint Chiefs of Staff came from the observed branch in a given year. This will help to determine whether or not the Chairman's position exerts an independent effect on a branch's influence and serves as an additional

means of evaluating expectations derived from bureaucratic politics theory.¹³ To account for institutional changes that may affect the influence of military leaders, I include a dummy variable for the Goldwater-Nichols Act. This variable is coded 1 for each observation that occurs after the passage of the Goldwater-Nichols Act.

Dummy variables are included in the analysis to account for the possibility that each branch of the military differs in some systematic way from the other two branches. The Army and the Navy, having been established long before the Air Force, might be expected to exercise greater influence. Alternatively, the Navy might have more money than the Army as a result of the materials and supplies that it requires generally costing more. The dummy variables included are for the Army and the Air Force.¹⁴

I also control for other factors that may be associated with spikes in military spending. A dummy variable is included which identifies each year that the United States is engaged in a major war. This will control for increases in spending that are the result of wartime conditions.¹⁵ Aside from wartime periods, the Reagan administration also saw a significant increase in military spending across all budget categories. I include a dummy variable to capture these effects.

Several scholars have argued that Democrats and Republicans have different preferences related to military spending (. Isaacson & Thomas 1986, Fordham 2002) To account for the influence of the divergent preferences of Republicans and Democrats over defense-related issues, I include two variables that identify whether or not the presidency and Congress are controlled by Democrats. The presidency is coded 1 for every observation in which the president is a Democrat, and the Democratic Congress variable is coded 1 for every year in which both houses of Congress

¹³The timing with which an acting Chairman would step down and be replaced has changed over the years. Most Chairmen assume their duties at the beginning of October, but many (8 of 17) were appointed earlier in the year. To account for these changes I code each individual's first year as Chairman to be the first year in which they served at least 4 months in the position.

¹⁴The Air Force dummy is included in place of the Navy dummy to make interpretation of an Air Force-specific time variable easier.

¹⁵This variable is coded 1 during Korea, the Vietnam War, the first Gulf War, and for the wars in Afghanistan and Iraq (Sarkees & Wayman 2010).

are under Democratic control.

To capture any temporal trends, I include a variable to account for the potential impact of time on spending. As the literature has indicated, politicians have, over the years, expressed different preferences when it came to the best ways to pursue America's global military commitments. During the early years of the Cold War, Republicans tended to favor less expensive strategic forces. Given that the Air Force had a monopoly on the delivery of nuclear weapons in the early years of the Cold War, and that technological developments later enabled the other branches to compete more effectively in this area, we should expect time to have a unique negative effect for the Air Force. Thus I include an Air Force-specific time variable to capture this trend.

Similarly, I interact the partisan variables with the time variable. Several scholars have noted that the preferences of Democrats and Republicans over matters related to national security and defense policy have shifted over time (Trubowitz 1998, Cronin & Fordham 1999). These studies have found that Democrats tended to be more supportive of internationalist policies in the early years of the Cold War, and Republicans less so. This pattern changes in the mid-1960s to find Republicans more supportive of internationalist policies than Democrats. Consequently, which party controls each branch of government should play an important role in determining levels of defense expenditures.

Finally, studies of defense spending often incorporate a variable accounting for the potential impact of deficit spending. This variable is intended to capture the additional flexibility that deficit spending can provide in terms of allowing greater levels of military spending than would otherwise be possible. To account for these effects I include deficit spending as a percentage of GDP (Office of Management and Budget 2010).

Analysis

Before discussing the results of the analyses, there are two points that should be made. First, the variables for centrality and the CJCOS are lagged by two time periods. Marra (1985, 369) provides

a brief discussion of the timing associated with the Department of Defense budget process. Marra notes that work on the budget for a given fiscal year starts 15–18 months before the beginning of that fiscal year. Consequently, a two-year lag on the centrality variables is appropriate given the fact that military leaders are going to be most involved in the budgeting process at the early stages, and whatever influence they are able to exert may not manifest itself until several months later.

Second, the variables accounting for the influence of Congress and the president are not lagged. The typical approach to modeling defense expenditures usually lags these variables by one time period. This approach is intended to reflect the basic budgeting process wherein proposed budgets are submitted to Congress—which typically occur several months before the onset of the fiscal year for which the budget will apply. However, many scholars have ignored the fact that the officially recorded defense spending figures for a given fiscal year can be quite misleading. It is very common for supplementary spending packages to be passed after the beginning of a given fiscal year. These supplementary appropriations are subsequently recorded as a part of the fiscal year for which they were appropriated, even if the fiscal year has already begun, and it is not uncommon for there to be multiple supplemental bills. Thus, a significant portion of the change between time t and time $t - 1$ may actually be the result of supplemental spending during time t , which suggests a slightly different causal process to be at work in terms of the influence of political actors.

This practice is utilized often, especially during times of war. During 2003 Senate debates on an amendment to limit such supplemental appropriations for the Iraq and Afghan wars, Senator Chris Dodd (D-CT) expressed his belief that the Bush administration's defense budget estimates were deliberately underestimated to mask the true cost of American military operations (Government Printing Office 2003). Even during the Cold War, supplemental spending packages during wartime sometimes exceeded the amounts provided through the usual budget process (Daggett 2006). However, this practice is common even during peacetime. Supplemental defense authorization bills have been passed at least once per year since 1981, and for non-trivial amounts. Often times such

bills will authorize an additional \$10–\$20 billion in supplemental funds (Government Accountability Office 2008). This kind of additional funding can also come from less obvious sources—the Department of Defense also received \$500 million in supplemental appropriations in the aftermath of Hurricane Katrina (Lake & Chite 2005).

Given their structure, most models of defense expenditures examine the changes in defense spending from a previous year—either by using a change dependent variable or a lagged dependent variable. Many scholars examining a variety of budgetary issues have argued, the previous year’s budget serves as a starting point from which additions or cuts may be made (for examples, see Marra 1985, Berry & Lowery 1990, Hartley & Russett 1992). Thus the variation that we are explaining from year to year is often much smaller than the total amounts being spent. The average change in a branch’s obligational authority in the data set is approximately \$1.7 billion. Considering that these supplemental spending packages often amount to several billion dollars, there is ample reason to believe that these dynamics are influencing changes seen in the data. Furthermore, unlike military leaders political leaders can intervene in the budgeting process at nearly any point in time. I use the partisan control of the presidency and Congress at time t to capture this late-stage intervention by political leaders.¹⁶

Results and Discussion

Table 1 shows the results for the six models run. Models 1–3 use the obligational authority dependent variable, while models 4–6 use procurement spending. Panel-corrected standard errors were used in all models to control for spatial correlation between branches (Beck & Katz 1995).

¹⁶As a robustness check I have run the models by lagging the Democratic Congress and Democratic President variables by one year. The coefficients on centrality, CJCOS, and the CJCOS interaction with Goldwater-Nichols all remain highly significant and in the expected directions in the obligational authority model. The centrality interaction term falls out of significance in the procurement model as well. However, in the obligational authority and procurement models, the substantive effect of the Democratic Congress variable weakens considerably, and fails to reach significance. Given previous research on partisan preferences on foreign policy issues (see Trubowitz 1998, Cronin & Fordham 1999, Fordham 2002) there is serious reason to question this weakened and insignificant finding. I argue that this indicates that the causal process captured by the un-lagged specification is providing a more accurate picture of what is driving spending patterns, given that I am also controlling for the influence of military leaders during the early stages of the budgeting process, as well as the influence of the previous year’s budget.

A lagged dependent variable was also included to control for the influence of the previous year's spending. Models 1 and 4 provide the results of the base models. The control variables generally perform as expected. Results indicate that the Army receives, on average, less money in both categories than the Navy, while the Air Force receives more money. However, the nuclear technology variable is negative and significant in all models, indicating that the Air Force's budget does decline as time goes on. The war and Reagan variables are both positive and significant in all models, as we expect. The party variables also perform as we expect. Democrats are inclined to spend more during the early years of the Cold War, but the interaction variables indicate that Democrats spend less on the military over time. This is in line with the findings of Cronin & Fordham (1999) who have examined the changes in Republican and Democratic preferences over foreign policy.

*** Table 1 about here ***

Models 2 and 5 shows the effect of the consolidated centrality measure on obligational authority and procurement spending. Although neither the constituent centrality measure nor the interaction term are significant in the obligational authority model, the interaction effect between the two is significant at the .1 level.¹⁷ Similarly, the interaction effect of centrality in the post-Goldwater period is positive and significant at the .05 level for the procurement regression in model 5. In both spending categories, controlling a greater share of the military hierarchy seems to exert a positive and significant effect in the post-Goldwater period, indicating that the institutional changes that the Goldwater-Nichols Act imposed did in fact lead to changes in the ability of service members to influence spending decisions.

However, as previously hypothesized the effects of particular positions may exert their own independent effect on military spending priorities. To account for this possibility I recalculate the centrality measure used in models 2 and 5 to exclude the CJCOS. This new centrality measure only includes the CINCs and the Vice-Chairman. I then run models 2 and 5 again, this time substituting

¹⁷In calculating these joint tests I follow Wooldridge's (2003, 329) approach.

the new centrality variable and the CJCOS dummy variable, along with their respective interaction terms. These results are shown in models 3 and 6.¹⁸

The results from these models generate some interesting results. First, the coefficients on the CJCOS variable in model 3 is positive and significant at the .05 level in the pre-Goldwater period, and negative and significant in the post-Goldwater period. The interaction effect in model 3, indicating that holding the CJCOS position is associated with an approximate loss of \$6.7 billion dollars in the post-Goldwater period as compared to before, is significant at the .05 level as well. These results support the hypotheses regarding the Chairman's unique independent effect on spending, while also suggesting that the Goldwater-Nichols Act made the Chairman a less influential position as compared to the pre-Goldwater period by removing the Chairman from the operational chain of command. However, it does not appear that the CJCOS has had any discernible impact on procurement spending in either time period. Caution should be exercised in interpreting these results, however, as the Chairman's influence may have increased in other, less tangible, areas.

Second, the centrality coefficients in both models 3 and 6 are highly significant and negative, indicating that the greater a branch's representation and power within the military hierarchy, the less money they receive. This result is quite plausible in the pre-Goldwater period if we consider that service chiefs may be exerting a much greater influence on budgetary decisions and are balancing against whichever service begins to grow too powerful. Alternatively, the interaction terms are both positive and highly significant. The interaction effects in both models are also positive, but neither interaction effect is statistically significantly different from zero. However, the lack of significance on these interaction effects only indicates that the effect is not statistically significantly different from 0. In addition to the impact of centrality at any given time, we are also interested in learning something about the difference between the two time periods.

¹⁸I have also run all models with no interaction terms. As should be expected given the hypotheses regarding the changing effects of these variables, the variables of interest do not exhibit a significant impact on spending.

*** Figure 3 about here ***

In order to better grasp the impact that centrality has on spending, further explanation is required. Figure 3 shows the predicted effect of centrality on obligational authority in the pre- and post-Goldwater periods based on model 3. The graph ranges from .35 to .95 to reflect the range of the centrality variable that is observed in the data. The vertical line is set at .59 the mean value for centrality in the data. Control variables were all held at their respective means or modes, with the Army branch dummy serving as the active category. Accordingly, the lagged dependent variable was held at the Army's mean value.

Although the magnitudes on the centrality coefficients may seem striking, they are largely meaningless without additional contextualization. The average change in centrality from one year to the next is .07, which equates to a loss of approximately \$2.2 billion in obligational authority during the pre-Goldwater period and an approximate gain of \$53 million during the post-Goldwater period. Substantively, the impact of such a shift depends on the relative power of positions held and the number of available positions. Assuming an average power equal to 1, a change in centrality of .07 would roughly equate to a branch gaining or losing one position in the current military structure. For any given year, a branch may expect to gain or lose somewhere in the range of \$53 to \$158 million dollars in the post-Goldwater period, assuming a gain or loss of between one and three positions.

It should also be noted that the time variable is held constant at the sample's median value of 31 (1979) in generating the predicted values for both the pre- and post-Goldwater periods. Consequently, the results indicate that, despite the Goldwater-Nichols variable's negative sign, for most levels of centrality a branch receives more money in the post-Goldwater period than before, and that this effect is not the result of changes stemming from simple temporal factors associated with the calculation of each line. At the average value of centrality the difference between the two time periods is approximately \$6.4 billion greater in the post-Goldwater period.

As briefly mentioned above, one possible explanation for the negative coefficient on the centrality variables for the pre-Goldwater period is that the chiefs of staff coordinate efforts in an attempt to balance against any branch that gains a disproportionate share of important command positions. Prior to 1986, the service chiefs were more actively involved in operational issues. To some extent this fact is reflected by the changes in the effect of the CJCOS variable in the models above. The lack of significance on the interaction effects in these models could indicate that the service chiefs are still able to influence spending, but that CINCs are now better able to exert their own balancing influence against the service chiefs through their control of command positions in the field, thus nullifying the previous dynamic and possibly allowing for some marginal gains from each field position that branch comes to control. It may also indicate that, despite increasing the power of the CINCs, their position as commanders of forces drawn from all three branches makes them slightly less parochial. Furthermore, the significance of the centrality variables, while controlling for the influence of political parties, supports the expectation that the composition of the American military hierarchy exerts an independent influence on military spending priorities. The two-year lag on the centrality variables, and the fact that the appointment of military officials often occurs in a sometimes random and staggering manner, further suggests that these actors not serving as mere proxies for the preferences of the political actors that have appointed them.

Conclusions

The results of the preceding study provide a few important findings. First, while several studies have examined the role of domestic political competition and conflict in shaping foreign policy decisions, few have sought to account for the role of military officials in this process. Although few scholars would argue that military leaders do not play an important role in shaping foreign policy, attempts to incorporate these actors into our quantitative models have been few. Consequently this study represents one more step in the development of a better understanding of the role played by domestic political interests in determining state behavior at the international level by moving

beyond the initial layer of elected officials and explicitly accounting for the influence of military leadership.

Second, the results of this study further indicate that the ability of military officials to influence policy outcomes is affected by the institutions governing civil-military relations, as well as the relations between high-ranking military officials. Indeed, the Goldwater-Nichols Act appears to have had important consequences in determining which actors were able to influence defense policy, and how much influence they were able exert. The implications of these findings are important as they suggest that power amongst America's military leaders has been somewhat decentralized since the passage of this legislation. While this may not seem terribly significant at first glance, it is important to keep in mind that this legislation represents the greatest effort to reorganize the structure of the American military since the National Security Act of 1947. Any serious attempt at reorganizing the organization of the American military takes an enormous amount of time and political capital. Imposing significant changes on the ways in which military leaders can influence policy is not something that can be done overnight, but is something that takes decades to accomplish, and is likely to have implications for decades to follow.

Finally, these results also speak to the subjectivity of national security concerns. The notion that military leaders will use their control of the military's broader organizational hierarchy to benefit their particular branch suggests something important about the degree to which national security and foreign policy can be conceptualized in terms of common strategic interests. Although the idea of divergent preferences over national security policy is not new, this study underscores this concept by providing some evidence of the parochial nature of America's military leadership. If even those individuals charged with the planning and execution of the state's defense are inclined to pursue more narrow interests, then it seems all the more likely that politicians may be prone to significantly varied conceptualizations of just what constitutes the "national interest." The existence of similar variation amongst military leaders suggests that the processes shaping preferences over national security issues may be far more complex than we might expect.

References

- Allison, Graham & Morton Halperin. 1972. "Bureaucratic Politics: A Paradigm and Some Policy Implications." *World Politics* 24:40–79.
- Allison, Graham & Philip Zelikow. 1999. *Essence of Decision*. Kindle 2nd ed. Longman.
- Allison, Graham T. 1969. "Conceptual Models and the Cuban Missile Crisis." *The American Political Science Review* 63(3):689–718.
- Arena, Philip & Glenn Palmer. 2009. "Politics or the Economy? Domestic Correlates of Dispute Involvement in Developed Democracies." *International Studies Quarterly* 53:955–975.
- Bacevich, Andrew J. 2004. *American Empire: The Realities and Consequences of U.S. Diplomacy*. Harvard University Press.
- Bacevich, Andrew J. 2009. *The Limits of Power: The End of American Exceptionalism*. Holt Paperbacks.
- Beck, Nathaniel & Jonathan N. Katz. 1995. "What to do (and not to do) with Time-Series Cross-Section Data." *American Political Science Review* 89(3):634–647.
- Berry, William D. & David Lowery. 1990. "An Alternative Approach to Understanding Budgetary Trade-offs." *American Journal of Political Science* 34(3):671–705.
- Betts, Richard K. 1991. *Soldiers, Statesmen, and Cold War Crises*. Columbia University Press.
- Bourne, Christopher M. 1998. "Unintended Consequences of the Goldwater-Nichols Act." *Joint Forces Quarterly* .
- Clark, David H. 2003. "Can Strategic Interaction Divert Diversionary Behavior? A Model of U.S. Conflict Propensity." *The Journal of Politics* 65(4):1013–1039.
- Clark, David H. & Timothy Nordstrom. 2005. "Democratic Variants and Democratic Variance: How Domestic Constraints Shape Interstate Conflict." *The Journal of Politics* 67(1):250–270.
- Clifford, Clark. 1991. *Counsel to the President*. New York: Random House.
- Cronin, Patrick & Benjamin O. Fordham. 1999. "Timeless Principles or Today's Fashion? Testing the Stability of the Linkage between Ideology and Foreign Policy in the Senate." *The Journal of Politics* 61(4):967–98.
- Daggett, Stephen. 2006. Military Operations: Precedents for Funding Contingency Operations in Regular or in Supplemental Appropriations Bills. Technical report Congressional Research Services.
- Epstein, David & Sharyn O'Halloran. 1999. *Delegating powers: A Transaction Cost Politics Approach to Policy Making Under Separate Powers*. Cambridge Univ Press.

- Faust, Katherine. 1997. "Centrality in affiliation networks." *Social Networks* 19(2):157 – 191.
- Fordham, Benjamin. 1998. "Partisanship, Macroeconomic Policy, and U.S. Uses of Force, 1949-1994." *The Journal of Conflict Resolution* 42(4):418–439.
- Fordham, Benjamin O. 2002. "Domestic Politics, International Pressure, and the Allocation of American Cold War Military Spending." *The Journal of Politics* 64(1):63–88.
- Franks, Tommy R. 2004. *American Soldier*. Harper Collins.
- Government Accountability Office. 2008. Supplemental Appropriations: Opportunities Exist to Increase Transparency and Provide Additional Controls. Technical report United States Government Accountability Office.
- Government Printing Office. 2003. Congressional Record. In *Congressional Record: Proceedings and Debates of the 108th Congress, First Session*. Vol. 149 Government Printing Office p. 18478.
- Haas, Peter M. 1992. "Introduction: Epistemic Communities and International Policy Coordination." *International Organization* 46(1):1–35.
- Halperin, Morton, Priscilla Clapp & Arnold Kanter. 2007. *Bureaucratic Politics and Foreign Policy*. 2nd ed. Brookings Institution Press.
- Hammond, Thomas H. 1986. "Agenda Control, Organizational Structure, and Bureaucratic Politics." *American Journal of Political Science* 30(2):379–420.
- Hartley, Thomas & Bruce Russett. 1992. "Public Opinion and the Common Defense: Who Governs Military Spending in the United States?" *American Political Science Review* 86(4):905–915.
- Isaacson, Walter & Evan Thomas. 1986. *The Wise Men: Six Friends and the World They Made*. Simon and Schuster.
- Kolaczyk, Eric D. 2009. *Statistical Analysis of Network Data*. Springer Series in Statistics Springer Science.
- Lake, Jennifer E. & Ralph M. Chite. 2005. Emergency Supplemental Appropriations for Hurricane Katrina Relief. Technical report Congressional Research Services.
- Leblang, David & Steve Chan. 2003. "Explaining Wars Fought by Established Democracies: Do Institutional Constraints Matter?" *Political Research Quarterly* 56(4):285–400.
- Lowi, Theodore. 1963. Bases in Spain. In *American Civil-Military Decisions*, ed. Harold Stein. University of Alabama Press pp. 667–702.
- Marra, Robin F. 1985. "A Cybernetic Model of the US Defense Expenditure Policymaking Process." *International Studies Quarterly* 29(4):357–384.

- Milner, Helen V. & Dustin H. Tingley. 2010. "The Political Economy of U.S. Foreign Aid: American Legislators and the Domestic Politics of Aid." *Economics and Politics* 22(2):200–232.
- Moe, Terry M. 1989. The Politics of Bureaucratic Structure. In *Can the Government Govern?*, ed. John E. Chubb & Paul E. Peterson. The Brookings Institution pp. 267–329.
- Nagl, John. 2002. *Learning to Eat Soup with a Knife*. University of Chicago Press.
- Office of Management and Budget. 2010. Historical Tables: Budget of the US Government. Technical report United States Office of Management and Budget.
- Office of the Federal Register. Various Years. United States Government Manual. Technical report National Archives and Records Administration.
- Opsahl, Tore, Filip Agneessens & John Skvoretz. 2010. "Node Centrality in Weighted Networks: Generalizing Degree and Shortest Paths." *Social Networks* 32:245–251.
- Reiter, Dan & Erik R. Tillman. 2002. "Public, Legislative, and Executive Constraints on the Democratic Initiation of Conflict." *The Journal of Politics* 64(3):819–826.
- Rhodes, Edward. 1994. "Do Bureaucratic Politics Matter?: Some Disconfirming Findings from the Case of the U.S. Navy." *World Politics* 47(1):1–41.
- Sarkees, Meredeith Reid & Frank Wayman. 2010. *Resort to War: 1816–2007*. CQ Press.
- Schmitt, Erick. 2004. "Other Services Eyed by Army for Recruiting." *New York Times* .
URL: <http://www.nytimes.com/2004/07/09/us/other-services-eyed-by-army-for-recruiting.html>
- Shanker, Thom. 2011. "Warning Against Wars Like Iraq and Afghanistan." *The New York Times* .
URL: <http://www.nytimes.com/2011/02/26/world/26gates.html>
- Stevenson, Charles A. 2008. "Underlying Assumptions of the National Security Act of 1947." *Joint Force Quarterly* 48(1):129–133.
- Trask, Roger R. & Alfred Goldberg. 1997. *The Department of Defense, 1947-1997: Organization and Leaders*. Historical Office, Office of the Secretary of Defense.
- Trubowitz, Peter. 1998. *Defining the National Interest*. The University of Chicago Press.
- United States Department of Defense: Office of the Comptroller. 2010. Department of Defense: National Defense Budget Estimates for FY 2011. Technical report Department of Defense, Office of the Comptroller.
- Wasserman, Stanley & Katherine Faust. 1994. *Social Network Analysis: Methods and Applications*. Cambridge University Press.
- Wilson, George C. 2000. *This War Really Matters*. 1st ed. CQ Press.

Woodward, Bob. 2002. *Bush at War*. Simon and Schuster.

Wooldridge, Jeffrey M. 2003. *Introductory Econometrics: A Modern Approach*. Thompson South Western.

Table 1: Regressions Predicting Obligational Authority and Procurement

	Models 1–3			Models 4–6		
	Obligational Authority			Procurement		
	(1)	(2)	(3)	(4)	(5)	(6)
Centrality		3030.0 (4423.5)	-32072.4* (10798.8)		192.1 (2526.2)	-17052.2* (6310.7)
Centrality * Goldwater		9502.5 (7782.6)	32822.4* (12749.9)		10003.8* (4476.7)	24434.2* (7400.1)
CJCOS			3690.5* (1644.4)			1276.3 (958.6)
CJCOS * Goldwater			-6746.2* (2813.2)			-812.1 (1604.2)
Army	-1057.0 (1557.1)	-1295.8 (1669.5)	-842.9 (1612.6)	-4372.0* (1238.1)	-4670.7* (1256.0)	-4362.1* (1281.0)
Air Force	7642.9* (2577.6)	8751.0* (2730.9)	13533.5* (2967.6)	3517.1* (1653.4)	4064.3* (1713.7)	6147.2* (1883.8)
Nuclear Tech	-199.5* (70.16)	-220.2* (74.85)	-325.2* (78.57)	-96.99* (45.81)	-103.1* (47.38)	-142.7* (50.43)
Year	819.7* (179.4)	746.4* (174.4)	730.2* (173.2)	408.9* (111.5)	328.4* (104.6)	313.4* (102.8)
Goldwater-Nichols	-4183.1 (4715.0)	-8386.8 (6370.0)	-12947.6* (6501.3)	-2923.8 (2850.3)	-7834.9* (3707.4)	-10822.1* (3785.3)
War	8048.8* (2800.3)	7377.3* (2638.8)	8093.8* (2612.8)	3176.7 (1705.0)	2827.9 (1564.9)	3050.3* (1536.7)
Reagan	17842.9* (4801.9)	21975.7* (5587.5)	26557.9* (5761.6)	11345.1* (2934.5)	15801.6* (3304.2)	18455.4* (3375.6)
Dem. President	14912.7* (5112.3)	17605.5* (4978.2)	16993.0* (4868.7)	9170.7* (3057.2)	10821.3* (2924.3)	10645.1* (2833.2)
Dem. President * Year	-442.2* (150.5)	-515.7* (147.1)	-499.3* (143.5)	-223.2* (90.92)	-265.9* (86.74)	-262.9* (83.98)
Dem. Congress	20368.3* (7754.8)	21825.9* (7531.8)	23305.4* (7395.3)	14050.9* (4847.9)	15599.0* (4582.1)	16752.8* (4476.5)
Dem. Congress * Year	-435.7* (193.9)	-437.3* (182.2)	-426.9* (178.9)	-265.7* (120.4)	-266.1* (110.3)	-269.0* (107.4)
Deficit as % of GDP	937.7 (715.9)	963.5 (683.6)	1131.4 (679.0)	490.2 (432.0)	554.7 (400.4)	685.6 (394.0)
LDV	0.781* (0.0535)	0.767* (0.0531)	0.755* (0.0516)	0.698* (0.0663)	0.677* (0.0628)	0.680* (0.0622)
Constant	-11721.9 (8102.0)	-13464.1 (8431.2)	4786.2 (9169.6)	-9301.0 (4994.9)	-9057.0 (5058.5)	-951.7 (5682.9)
Observations	183	180	180	183	180	180

Panel-corrected standard errors in parentheses

* $p \leq 0.05$

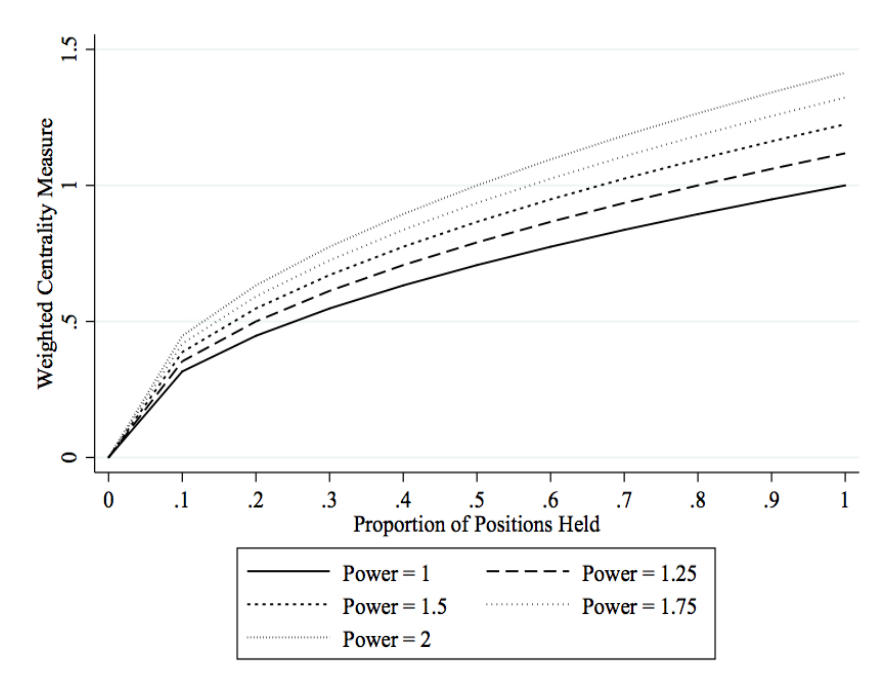
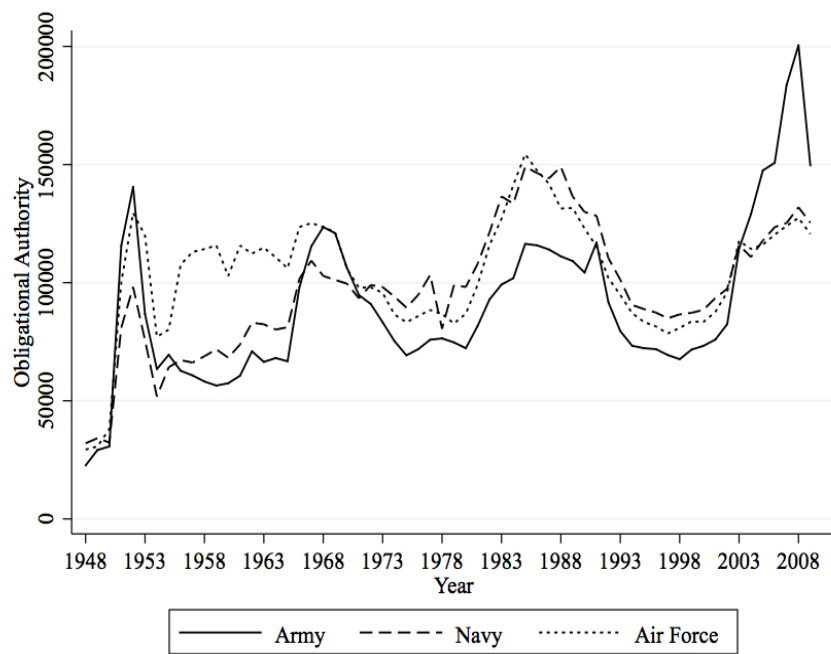
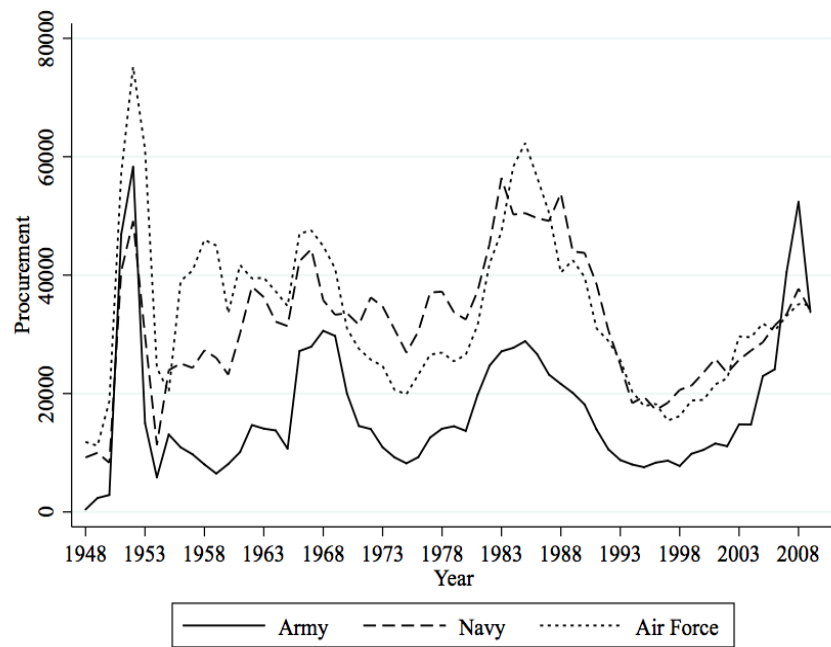


Figure 1: Effect of variations in average power values on the weighted centrality score.



(a)



(b)

Figure 2: Obligational Authority and Procurement Spending by Branch, 1948–2009 (in millions of constant 2000 dollars).

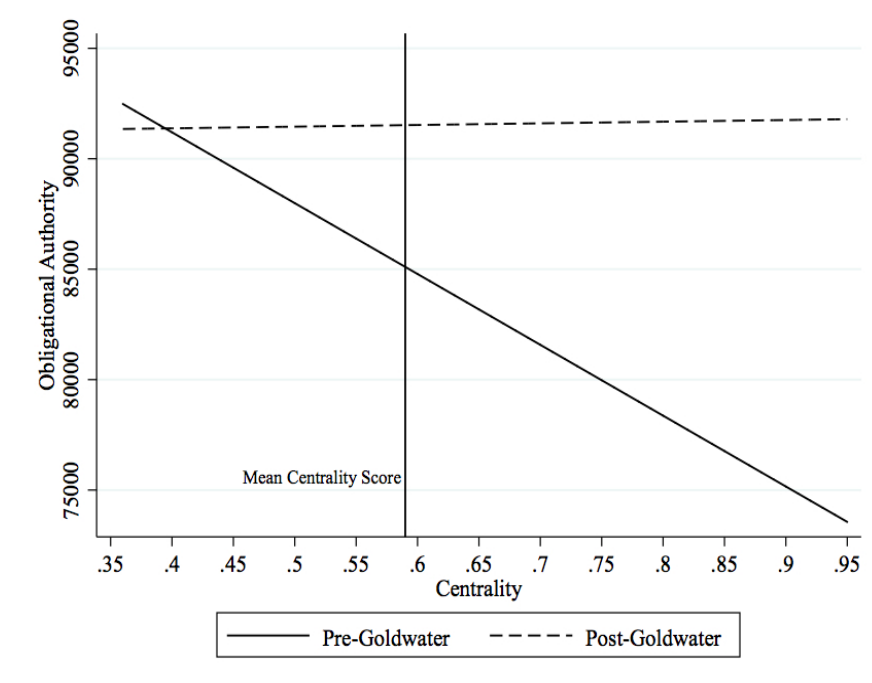


Figure 3: Predicted effect of centrality and Goldwater-Nichols Act on obligatory authority (in millions of constant 2000 dollars).